General

Guideline Title

IAPAC guidelines for optimizing the HIV care continuum for adults and adolescents.

Bibliographic Source(s)

International Advisory Panel on HIV Care Continuum Optimization. IAPAC guidelines for optimizing the HIV care continuum for adults and adolescents. J Int Assoc Provid AIDS Care. 2015 Nov-Dec;14(Suppl 1):S3-S34. [314 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

The strength of recommendation (A-C) and quality of evidence (I-V) grading scales are defined at the end of the "Major Recommendations" field.

Note: While outside the scope of these guidelines, the advisory panel also developed guidance on a series of issues specific to key populations that are disproportionally affected by human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), which is available as Table 4 of the original guideline document.

Optimizing the HIV Care Environment

1. Laws that criminalize the conduct of or exert punitive legal measures against men who have sex with men (MSM), transgender individuals, substance users, and sex workers are not recommended and should be repealed where they have been enacted. (A IV)
2. Laws that criminalize the conduct of people living with human immunodeficiency virus (PLHIV) based on perceived exposure to HIV, and without any evidence of intent to do harm, are not recommended and should be repealed where they have been enacted. (A IV)
3. HIV-related restrictions on entry, stay, and residence in any country for PLHIV are not recommended and should be repealed where they have been enacted. (A IV)
4. Strategies to monitor for and eliminate stigma and discrimination based on race, ethnicity, gender, age, sexual orientation, and/or behavior in all settings, but particularly in health care settings, using standardized measures and evidence-based approaches, are recommended. (B II)
5. Proactive steps are recommended to identify and manage clinical mental health disorders (e.g., anxiety, depression, and traumatic stress) and/or mental health issues related to HIV diagnosis, disclosure of HIV status, and/or HIV treatment. (A II)
6. Enabling PLHIV to take responsibility for their care (e.g., self-management, user-driven care) is recommended. (B I)
7. Shifting and sharing HIV testing, dispensing of antiretroviral therapy (ART), and other appropriate tasks among professional and

paraprofessional health worker cadres is recommended. (A I)
    a. Use of lay health workers to provide pretest education and testing and to enhance PLHIV engagement in HIV care is recommended. (B I)
    b. Task shifting/sharing from physicians to appropriately trained health care providers, including nurses and associate clinicians, is recommended for ART initiation and maintenance. (B II)
8. Community engagement in every step across the HIV care continuum is recommended. (B II)

Increasing HIV Testing Coverage and Linkage to Care

9. Routinely offering opt-out HIV testing to all individuals who present at health facilities is recommended. (A I)
10. Community-based HIV testing is recommended to reach those who are less likely to attend facility-based HIV testing. (A I)
11. Confidential, voluntary HIV testing in large workplace and institutional settings (military, police, mining/trucking companies, and educational venues) should be considered. (B III)
12. HIV self-testing is recommended with the provision of guidance about the proper method for administering the test and direction on what to do once the results have been obtained. (B II)
13. Use of epidemiological data and network analyses to identify individuals at risk of HIV infection for HIV testing is recommended. (B II)
14. The offer of HIV testing to partners of newly diagnosed individuals is recommended. (A I)
15. Immediate referral to HIV care is recommended following an HIV-positive diagnosis to improve linkage to ART. (A I)
16. For high-risk individuals who test HIV negative, offering preexposure prophylaxis (PrEP) is recommended in addition to the provision of free condoms, education about risk reduction strategies, postexposure prophylaxis (PEP), and voluntary medical male circumcision. (A I)
17. Use of case managers and patient navigators to increase linkage to care is recommended. (B II)

Increasing HIV Treatment Coverage

18. The immediate offer of ART after HIV diagnosis, irrespective of CD4 count or clinical stage, is recommended. (A I)
19. First-line ARV regimens with the highest levels of efficacy, lowest adverse event profiles, and delivered in once-daily (QD) fixed-dose combinations are recommended. (B II)
20. Viral load testing at least every 6 months is recommended as the preferred tool for monitoring ART response. (B II)
21. HIV drug resistance testing is recommended at entry into care or prior to ART initiation and when virologic failure is confirmed. (B I)
    a. Where routine access to HIV drug resistance testing is restricted, population-based surveillance is recommended. (B II)
22. Community-located ART distribution is recommended. (A II)
    a. The use of community-based pharmacies should be considered. (C III)

Increasing Retention in Care, ART Adherence, and Viral Suppression

23. Systematic monitoring of retention in HIV care is recommended for all patients. (A II)
    a. Retention in HIV care should be considered as a quality indicator. (B III)
    b. Measuring retention in HIV care using electronic health record and other health system data is recommended. (B II)
    c. Use of clinic databases/surveillance systems for HIV clinical monitoring and population-level tracking is recommended. (B II)
24. Routine ART adherence monitoring is recommended in all patients. (A II)
    a. Viral suppression is recommended as the primary adherence monitoring metric. (B II)
    b. Routine collection of self-reported adherence data from patients is recommended. (A II)
    c. Pharmacy refill data are recommended for adherence monitoring. (B II)
25. Information and communication technologies aimed at supporting patient self-care are recommended. (B II)
    a. Mobile health technology using weekly interactive components (e.g., 2-way short message service [SMS]) is recommended. (B I)
    b. Alarm devices are recommended as reminders for PLHIV with memory impairment. (A I)
26. Patient education about and offering support for medication adherence and keeping clinic appointments are recommended. (A I)
    a. Pillbox organizers are recommended, particularly for HIV-infected adults with lifestyle-related barriers to adherence. (B II)
27. Neither directly administered nor directly observed ART is recommended for routine clinical care settings. (A I)
    a. Directly administered ART is recommended for people who inject drugs and released prisoners at high risk of ART nonadherence. (B I)
28. Proactive engagement and reengagement of patients who miss clinic appointments and/or are lost to follow-up, including intensive outreach for those not engaged in care within 1 month of a new HIV diagnosis, is recommended. (B II)
    a. Case management to retain PLHIV in care and to locate and reengage patients lost to follow-up is recommended. (B II)
    b. Transportation support for PLHIV to attend their clinic visits is recommended. (B II)

Adolescents

29. Removing adult-assisted consent to HIV testing and counseling is recommended for minor adolescents with the capacity to consent. (B II)
30. Adolescent-centered services are recommended in both clinical and community-based settings. (A IV)
31. Informing an adolescent of his/her HIV-positive diagnosis is recommended as soon after diagnosis as feasible. (B II)
32. A transition plan between pediatric and adult HIV care is recommended. (B II)

Metrics for and Monitoring of the HIV Care Continuum

33. A standardized method should be used to estimate the total number of PLHIV (diagnosed and undiagnosed) within a geographic setting. (A IV)
34. The estimated number of PLHIV in the geographic setting should be the overall denominator for the HIV care continuum. (A IV)
35. Collection of a minimum set of 5 data elements should be considered to populate the HIV care continuum. (A IV)
    - Estimated number of PLHIV
    - Number and proportion of PLHIV who are diagnosed as having HIV
    - Number and proportion of PLHIV who are linked to care (optional)
    - Number and proportion of PLHIV on ART
    - Number and proportion of PLHIV on ART who are virally suppressed
36. Where possible, jurisdictions should consider longitudinal cohort measurement of HIV service utilization and treatment outcomes to identify the means to maximize viral suppression through ensuring early access to ART and retention in care. (A IV)

Definitions

Strength of the Recommendation

Strength	Interpretation
Strong (A)	Almost all patients should receive the recommended course of action.
Moderate (B)	Most patients should receive the recommended course of action. However, other choices may be appropriate for some patients.
Optional (C)	There may be consideration for this recommendation on the basis of individual patient circumstances. Not recommended routinely.

Quality of the Body of Evidence

Quality	Interpretation
Excellent (I)	Randomized controlled trial (RCT) evidence without important limitations; overwhelming evidence from observational studies
High (II)	RCT evidence with important limitations; strong evidence from observational studies
Medium (III)	RCT evidence with critical limitations; observational study evidence without important limitations
Low (IV)	Other evidence, including extrapolations from bench research, usual practice, expert opinion, consensus guidelines; observational study evidence with important or critical limitations

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Human immunodeficiency virus (HIV) infection

- Acquired immunodeficiency syndrome (AIDS)

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Prevention

Risk Assessment

Screening

Treatment

Clinical Specialty

Family Practice

Infectious Diseases

Internal Medicine

Pediatrics

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Nurses

Other

Pharmacists

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Substance Use Disorders Treatment Providers

Guideline Objective(s)

To provide recommendations on clinical, behavioral, social, and structural interventions to optimize the human immunodeficiency virus (HIV) care continuum for adults and adolescents, including enhancing the care environment, addressing contextual barriers to scaling up services, and

measuring and monitoring the HIV care continuum

Target Population

Adults and adolescents (persons aged 10 to 19 years) living with human immunodeficiency virus (HIV)

Interventions and Practices Considered

1. Interventions for optimizing the human immunodeficiency virus (HIV) care environment at the behavioral, legal, social, and structural levels
2. Interventions for increasing HIV testing at the individual and population levels
3. Interventions for increasing linkage to and engagement and retention in HIV care at the individual, community, and population levels
4. Interventions to increase viral suppression, including through enhancing access to, uptake of, and adherence to antiretroviral therapy (ART) at the individual, community, and population levels
5. Interventions to measure and monitor the HIV care continuum

Major Outcomes Considered

Biological and Behavioral Outcomes of Interest

Behavioral

- Human immunodeficiency virus (HIV) testing coverage ("seek and test")
- Linking and retaining to care
- Suppressing viral load
- Service utilization
- Loss to follow-up (LTFU)
- Antiretroviral therapy (ART) adherence

Biological

- HIV infection
- HIV viral load
- Opportunistic infection
- Mortality
- Other morbidity

Other Outcomes of Interest

- Addressing and strengthening health systems components
- Legal issues
- Social conditions
- Equity
- Service utilization

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Identification of Studies

Searches

A systematic search of the Centers for Disease Control and Prevention (CDC) Research Project Database was conducted to identify randomized controlled trials (RCTs), observational studies with or without comparators, and cross-sectional studies from January 2002 to July 2013. The CDC Research Project Database draws literature from bibliographic databases such as MEDLINE, CINAHL, PsycINFO, and EMBASE. Additional scientific input included hand-reviews of RCTs, observational studies, and modeling papers focused on the human immunodeficiency virus (HIV) care continuum.

A total of 6,132 met the criteria (6,020 within the review's timeframe, augmented by an additional 121 more recent papers reporting on studies deemed to be of sufficient scientific merit and programmatic importance to be included in the evidence base).

Conference Databases (Searched from July 2009 to July 2013)

- Conference on Retroviruses and Opportunistic Infections
- International Association of Providers of AIDS Care (IAPAC) Treatment and Prevention Adherence Conference
- International AIDS Conference
- International AIDS Society (IAS) Conference on HIV Pathogenesis, Treatment, and Prevention

Clinical Trials Databases

- CENTRAL (Cochrane Central Register of Controlled Trials)
- ClinicalTrials.gov (http://clinicaltrials.gov/)
- Current Controlled Trials (www.controlled-trials.com/)
- Pan-African Clinical Trials Registry (www.pactr.org)

Hand Search

Journals that typically contributed the most relevant citations were also searched.

Reference Lists

The reference lists of all studies identified by the above methods were analyzed as well as bibliographies of any relevant systematic reviews, meta-analyses, or current guidelines identified in the search process.

Critical Exceptions

In some exceptional instances, and at the discretion of the co-chairs and section chairs, additional searches of journals, conference databases, and clinical trial databases were conducted beyond the initial search timeframe, extending the search in these instances into August 1, 2015, to include more recent papers reporting on studies deemed to be of sufficient scientific merit and programmatic importance to be included in the evidence base. These results were reviewed, considered, and/or used to ensure that recommendations were synchronized with "game-changing" HIV management updates.

Refer to Section 3.2 in Appendix 1 of the original guideline document (see the "Availability of Companion Documents" field) for inclusion and exclusion criteria for studies, keywords, and outcomes of interest.

Number of Source Documents

Based on the advisory panel's analyses of the available data, an evidence base comprised of 1,047 papers was used to support the development of evidence-based recommendations by advisory panel members. The evidence base is comprised of 131 randomized controlled trials (RCTs), 171 observational studies, and 745 other data sources, including guidelines, systematic reviews, and descriptive articles.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of the Body of Evidence

Quality	Interpretation
Excellent (I)	Randomized controlled trial (RCT) evidence without important limitations; overwhelming evidence from observational studies
High (II)	RCT evidence with important limitations; strong evidence from observational studies
Medium (III)	RCT evidence with critical limitations; observational study evidence without important limitations
Low (IV)	Other evidence, including extrapolations from bench research, usual practice, expert opinion, consensus guidelines; observational study evidence with important or critical limitations

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Individual Study Evaluation and Grading

The panelists analyzed all citations and abstracted data, analyzed the full selected reports, and then graded them using an adapted grading scale based on the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system for rating clinical guidelines, and the American College of Physicians methods for development of clinical practice guidelines. This pragmatic and systematic approach allowed for transparent, intuitive, and efficient production of these guidelines. DistillerSR was used (www.systematic-review.net) as the software to code the citations and extract the abstracts.

A detailed description of the process is reported below. Of note, the studies identified for monitoring the human immunodeficiency virus (HIV) care continuum and some of those identified on how to optimize the HIV care environment were not included in this evaluation and grading.

Individual Study Evaluation

Data Extraction and Management

After the above assessment was completed, data were extracted and coded by six independent reviewers using standardized data extraction forms; differences were resolved by consensus with a third reviewer.

The extracted information included the following:

For the HIV care continuum:

- Study details: citation, start and end dates, location, study design
- Participant details: study population, ages, population size
- Intervention details: duration, nature, and intensity of the intervention
- Outcome details: tested, HIV positive, engaged and linked to care, mortality, clinical disease progression (acquired immune deficiency syndrome [AIDS] and non-AIDS events)
- Treatment response (CD4 count recovery and viral load response), adherence, retention, loss to follow-up, resistance, adverse events

For optimizing the HIV care environment:

- Study details: citation, start and end dates, location, study design
- Environment details: health system components, legal barriers, social conditions, ethical considerations
- Intervention details: duration, nature, and intensity of the intervention
- Outcome details: including direct ones such as HIV positive, mortality, clinical disease progression (AIDS and non-AIDS events), treatment response (CD4 count recovery and viral load response), adherence, retention, loss to follow-up, resistance, adverse events; and indirect ones related to addressing barriers and/or strengthening facilitators

Assessment of Risk of Bias in Included Studies

The 2 reviewers assessed each of the individual studies for risk of bias according to criteria described in Tables 1 and 2 in Appendix 1 of the original guideline document (see the "Availability of Companion Documents" field); differences and divergences were resolved by consensus with a third reviewer.

The Cochrane Risk of Bias Tool was used for randomized controlled trials (RCTs). As detailed in Table 1 of Appendix 1, the Cochrane tool assesses the risk of bias in individual studies across 6 domains (sequence generation; allocation concealment; blinding of participants, personnel, and outcome assessors; incomplete outcome data; selective outcome reporting; other sources of bias) with 3 potential responses for each domain: yes, no, or unclear.

Observational studies were assessed for risk of bias using the Newcastle-Ottawa Quality Assessment Scale (NOS). As detailed in Table 2 of Appendix 1, the NOS is a validated scale that assesses the quality of cohort and case-control studies in three main areas using a 'star rating system' from 0 to 9.

Evidence Synthesis Strategy

Data from the studies were compiled into summary tables listing ranges of association, quality ratings, risk and biases, and other factors.

Evaluating the Body of Hierarchical Evidence

The section chairs, supported by panel members of their respective sections, analyzed the studies and extracted interventions. Finally, individual studies were grouped together to form the body of evidence for each of the extracted interventions, and a summary of the studies was compiled for each intervention. The body of evidence for each intervention was then evaluated according to the factors listed in Table 3 in Appendix 1 of the original guideline document.

All of the factors listed in the table were considered in decreasing (-) or increasing (+) the quality of the body of evidence, and were framed around the standards and interpretation listed in the "Rating Scheme for the Strength of the Evidence" field. Advisory Panel members decided upon a grade and, using standardized forms, detailed instances in which they increased or decreased the quality of the body of evidence, specifically referencing the factor(s) involved. A grading scale based on the GRADE System for rating Clinical Guidelines was used, and the American College of Physicians methods for developing clinical practice guidelines, similar to the grading scale used for the 2012 International Association of Providers of AIDS Care (IAPAC) *Guidelines for Improving Entry into and Retention in Care and Antiretroviral Adherence for Persons living with HIV*.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Guidelines Development Process

The International Association of Providers of AIDS Care (IAPAC) convened an international advisory panel of 57 members from high-, middle-, and low-income countries, including experts in HIV prevention, care and treatment, marginalized populations, and human rights; as well as representatives from affected communities, professional associations, implementing agencies, and other stakeholders.

Under the leadership of four co-chairs, the international advisory panel developed the guidelines. Panelists were assigned to six sections: 1) optimizing the human immunodeficiency virus (HIV) care environment; 2) increasing HIV testing coverage and linkage to care; 4) increasing HIV treatment coverage; 5) increasing retention in HIV care, antiretroviral therapy (ART) adherence, and viral suppression; and 6) metrics for and monitoring the HIV care continuum. Each section had between two and four section chairs. The panelists advised collectively and/or individually on

any given matter related to the guidelines, reviewed drafts, and approved the final version of the guidelines. The co-chairs and section chairs constituted the guidelines writing committee. Section chairs were responsible for leading discussions within their respective sections; building consensus among their sections' members; writing the recommendations for their assigned sections; supporting analysis of the feedback for and finalization of the recommendations in their assigned sections; and contributing to the overall development of the guidelines.

The panelists also advised on the interpretation and grading of the evidence, and on the identification of evidence gaps; suggesting how to address the evidence gaps and assess best practices; analyzing the interventions extracted from the review of the literature; revising and grading the recommendations; and reviewing drafts of the guidelines leading to approval of the final version of the guidelines.

The guidelines were developed using the Appraisal of Guidelines for Research and Evaluation (AGREE) II instrument for practice guideline assessment. The guidelines development process was conducted in accordance with Institute of Medicine Standards for Developing Trustworthy Clinical Practice Guidelines.

Moving from Evidence to Recommendation

The panelists analyzed the interventions, reviewed the grading of the evidence, and analyzed the body of evidence as a whole for each intervention. On the basis of these analyses, the writing committee wrote recommendation statements and determined the strength of each recommendation. The factors listed in the table below were considered to determine the strength of the recommendation.

Factors Considered in Determining the Strength of the Recommendation

Factor	Comment
Quality of the body of hierarchical evidence	The higher the quality of evidence, the stronger the recommendation.
Qualitative and other non-hierarchical evidence	The more supporting the evidence, the stronger the recommendation.
Magnitude of benefit	The larger the benefits, the stronger the recommendation.
Magnitude of risks and burdens	The smaller the risks and burdens, the stronger the recommendation.
Costs	The lower the costs, the stronger the recommendation.
Feasibility	The larger the feasibility, the stronger the recommendation.
Acceptability (values and preferences)	The broader the acceptability, the stronger the recommendation.

Each of the factors was explicitly considered. After assessing the factors listed above, the panelists decided on the strength of each recommendation (see the "Rating Scheme of the Recommendations" field) and used standardized forms to detail how they came to each decision, specifically referencing each factor as appropriate. Of note, the quality of the body of evidence was only one of 13 factors considered in determining the strength of the recommendations.

Exception to Methodology for Metrics and Monitoring Recommendations

The majority of disease control programs select indicators on epidemiological grounds and from an understanding of what is required for a successful response. Selecting appropriate monitoring and evaluation indicators for the continuum of HIV care was largely based on experience and expert opinion, including the review of a sample of national and international program reports, as well as recommendations issued by local, national and international authorities. Additional scientific input included reviews of national and international target-setting related to HIV testing, care, and treatment; observational study and randomized controlled trials results; and modeling papers focused on HIV testing, linkage to care, ART initiation, and viral suppression. The recommendations were derived through consensus and only strong recommendations were retained. Formal grading of the evidence per the methodological grading scheme was not considered appropriate, given the lack of reports specifically focusing on continuum indicators and their performance. However, the metrics and monitoring recommendations fit well within normal program implementation standards, and are consistent with other international guidelines.

Rating Scheme for the Strength of the Recommendations

Strength of the Recommendation

Strength	Interpretation
Strong (A)	Almost all patients should receive the recommended course of action.

Strength	Interpretation
Moderate (B)	Most patients should receive the recommended course of action. However, other choices may be appropriate for some patients.
Optional (C)	There may be consideration for this recommendation on the basis of individual patient circumstances. Not recommended routinely.

Cost Analysis

The guideline developers reviewed published cost analyses.

Method of Guideline Validation

Not stated

Description of Method of Guideline Validation

Not applicable

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Optimizing the human immunodeficiency virus (HIV) care environment may be the most important action to ensure that there are meaningful increases in the number of people who are tested for HIV, linked to care, started on antiretroviral therapy (ART) if diagnosed to be HIV positive, and assisted to achieve and maintain long-term viral suppression.
- Linkage to care should enable a patient living with HIV to engage in care early, benefit from a broad package of care, and facilitate immediate access to ART. Prompt engagement in HIV care also optimizes individual and public health outcomes.
- Increasing early access to ART is associated with decreased acquired immune deficiency syndrome (AIDS)-related morbidity and mortality, as well as reduced risk of HIV transmission.
- Adherence to virologically active ART has been shown to be a major predictor of suppression of HIV replication, emergence of drug resistance, disease progression, and AIDS-related death. The dramatic dose–response pattern between adherence and viral suppression, as well as the reasonable rates of suppression achieved at moderate levels of adherence, supports the recommendation to treat all eligible people living with HIV (PLHIV) and encourage maximum adherence with each patient.

Refer to the original guideline document for benefits of specific interventions.

Potential Harms

Adverse drug effects associated with antiretroviral therapy

Qualifying Statements

Qualifying Statements

- In most instances, the evidence supporting the recommendations is generalizable across populations and settings. Nonetheless, the advisory panel notes that in relation to some recommendations, there is a challenge of context because implementation of a recommendation may be uniquely demonstrated in one setting but may not transfer well in another. In such instances, there is a need to measure both performance and outcomes as recommendations are implemented to ensure that there are not unique features related to the population or the setting that could affect the outcomes.
- Although the development of evidence-based recommendations specific to key populations is beyond the scope of these guidelines, guidance on a series of issues specific to women, adolescents, men who have sex with men (MSM), transgender individuals, sex workers, substance users, migrant and unstably housed populations, and incarcerated populations is provided in Table 4 of the original guideline document.

Implementation of the Guideline

Description of Implementation Strategy

Table 3 in the original guideline document provides context to and describes recommended standards for measurement of the human immunodeficiency virus (HIV) care continuum. In order to better align with the proposed United Nations (UN) 90-90-90 targets, a simplified, but comprehensive, 4-stage continuum of HIV care is proposed to capture (1) the proportion of people living with HIV (PLHIV) who have received their diagnosis (the first 90), (2) the proportion of PLHIV who are linked to care, (3) the proportion of PLHIV who are on antiretroviral therapy (ART), and (4) the proportion of PLHIV who are virally suppressed. The estimated number of PLHIV is the common denominator for all indicators. It is important to consider that the 90-90-90 targets use a floating denominator and that achieving 90-90-90 translates into a 90% tested-81% on ART-73% virally suppressed HIV care continuum.

As described in Table 3, the HIV care continuum should be (1) representative of the complete geographic area in question, (2) internally consistent, and (3) longitudinally monitored. Representativeness requires that the complete population of PLHIV in the geographic setting be accounted for. Internal consistency requires that the numerator from each continuum stage is also represented in its denominator. For example, all those classified as "diagnosed" are captured within the estimated prevalent population ("estimated HIV infected"), those classified as "on ART" are also classified as diagnosed, and those classified as "suppressed" are also classified as on ART. Further, the number of people estimated to have HIV infection is the overall denominator, and numerators of the subsequent stages use this single denominator to derive proportions.

The goal is to use metrics that are practical, feasible, and as simple as possible to enable accurate monitoring of the HIV care continuum. Programs may need to develop multiple monitoring approaches beyond the focused recommendations to assure a comprehensive quality response. Nevertheless, comprehensive and transparent reporting of the measurement methodology for each step of the continuum is imperative for internal decision making and external comparison. Incomplete reporting may result in suboptimal program assessment and suboptimal resource allocation decisions. If the recommended continuum is not followed, then a clear explanation of the methodology that is used should be included to alert end users and to avoid inappropriate comparison of results with continua that use the recommended approach.

Implementation Tools

Quality Measures

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

International Advisory Panel on HIV Care Continuum Optimization. IAPAC guidelines for optimizing the HIV care continuum for adults and adolescents. J Int Assoc Provid AIDS Care. 2015 Nov-Dec;14(Suppl 1):S3-S34. [314 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2015 Nov-Dec

Guideline Developer(s)

International Association of Providers of AIDS Care - Professional Association

Source(s) of Funding

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Guideline Committee

International Advisory Panel on HIV Care Continuum Optimization

Composition of Group That Authored the Guideline

Panel Chairs: Linda-Gail Bekker, MBChB, FCP, PhD; Julio Montaner, MD; Celso Ramos, MD, MSc; Renslow Sherer, MD

Section Chairs: Francesca Celletti, MD; Blayne Cutler, MD, PhD; Francois Dabis, MD, PhD; Reuben Granich, MD, MPH; Alan Greenberg, MD; Shira Goldenberg, PhD; Mark Hull, MD; Thomas Kerr, PhD; Ann Kurth, PhD, RN, MPH; Kenneth Mayer, MD; Lisa Metsch, PhD; Nelly R. Mugo, MBChB, MMed, MPH; Paula Munderi, MD; Jean Nachega, MD, PhD; Bohdan Nosyk, PhD; Jorge Saavedra, MD; Theresa Wolters, MA; Benjamin Young, MD, PhD; José M. Zuniga, PhD, MPH

Panelists: Bruce Agins, MD, MPH; K. Rivet Amico, PhD; Josip Begovac, MD, PhD; Chris Beyrer, MD, MPH; Pedro Cahn, MD, PhD; Gus Cairns, MA; Mardge Cohen, MD; Kathleen Deering, PhD; Carlos del Rio, MD, MPH; Ricardo S. Diaz, MD, PhD; Julia C. Dombrowski, MD,

MPH; Rupali Doshi, MD, MS; Wafaa El-Sadr, MD, MPH, MPA; Donna Futterman, MD; Anna Maria Geretti, MD, PhD, MRCPath; Giovanni Guaraldi, MD; Jim Halloran, RN, MSN, CNS; Christopher M. Gordon, PhD; Shoshana Kahana, PhD; Javier Lama, MD, MPH; Viviane Dias Lima, MSc, PhD; Nathan Linsk, PhD; Antonella D'Arminio Monforte, MD, PhD; Mark Nelson, MD; Eyerusalem Negussie, MD, MPH*; Praphan Phanuphak, MD, PhD; James Scott, PharmD, MMed; Douglas Shaffer, MD, MHS; Kate Shannon, PhD, MPH; Anne Spaulding, MD, MPH; Carlos Valerio, JD, MPH; Zunyou Wu, MD, MPH, PhD; Anna Zakowicz, MA, MIH; Carmen Zorrilla, MD

*Eyerusalem Negussie, MD, MPH is a staff member of the World Health Organization. The author alone is responsible for the views expressed in this article and they do not necessarily represent the decisions, policies, or views of the World Health Organization.

Financial Disclosures/Conflicts of Interest

Each member of the international advisory panel completed a written conflict of interest disclosure form. All potential conflicts of interest were declared, discussed, and resolved by the co-chairs.

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the Journal of the International Association of Providers of AIDS Care (JIAPAC) Web site .

Availability of Companion Documents

The following is available:

- IAPAC guidelines for optimizing the HIV care continuum for adults and adolescents. Appendix 1. Methodology. Washington (DC): International Association of Providers of AIDS Care; 2015. 15 p. Available from the Journal of the International Association of Providers of AIDS Care (JIAPAC) Web site .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on January 23, 2017. The information was not verified by the guideline developer.

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